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NEW SOVIET MACHINE TOOLS

GIANT ELECTRIC COPYING MACHINE -- Baku, Bakinskiy, Rabochiy, 28 Jul 53

The Gor'kiy Milling Machine Plant has manufactured a giant electric copy-  
 ing machine. It is 20.5 meters long, consists of nearly 18,000 parts, and is  
 equipped with 25 electric motors.

It will take no more than 200 work hours to machine one turbine blade on  
 it. This is several times as fast as machining it on existing equipment.

Tbilisi, Zarya Vostoka, 4 Aug 53

The first electric copying machine in the USSR for machining turbine blades  
 has been built at the Gor'kiy Milling Machine Plant.

The huge machine tool, which can hardly be called a machine tool, is 6.6  
 meters high, 11.8 meters wide, and 20.5 meters long. It weighs 185 tons. Ten  
 railroad flat cars are required for its transportation.

It is made up of about 18 different units and is equipped with 25 electric  
 motors having a total power of nearly 100 kilowatts. Its controls are central-  
 ized.

The electric copying machine will increase the labor productivity of tur-  
 bine builders seven or eight fold. One turbine blade for a hydroelectric sta-  
 tion such as the Kuybyshevskaya GES can be machined on it in 200 hours.

DESCRIBE POOR WORKING CONDITIONS AT PLANT -- Moscow, Trud, 7 Jun 53

In addition to automatic transfer machine lines, the Moscow Internal Grind-  
 ing Machine Plant also produces unique precision thread grinding and boring  
 machines.

- 1 -

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Although the plant personnel put out good products, they are guilty of last-minute speed up. Tsukanov, plant director, explains that the plant is an experimental one, engaged in a special type of production, and that delays in production under these conditions are unavoidable.

These explanations are not convincing. They merely represent an effort to justify serious shortcomings in intraplant planning and organization of production. For example, 30-ton machine tools are transported by antiquated winches instead of overhead cranes. Machine tools in the shops stand on the ground and when a truck passes, they vibrate and lose their accuracy.

None of the shops, including the assembly shops, are asphalted. Rooms are poorly illuminated. Daylight can hardly penetrate through the dusty windows. Dust from the dirt floors settles on new machine tools, which encumbers their testing. These poor production conditions contribute to the loss of accuracy of parts and to the increased time required to adjust the machine tools. In addition, the plant does not have a reserve stock of parts. As a result, a great deal of time is lost and last-minute speed-up ensues.

#### NEW MACHINE TOOLS TESTED -- Leningradskaya Pravda, 14 Jul 53

A new automatic machine tool has been tested at the Moscow Machine Tool Building Plant imeni Ordzhonikidze. It machines four parts at the same time. Various tools drill, turn, thread, knurl, and perform other operations. The new machine tool can manufacture bearing rings, electric-motor shafts, bolts, nuts, etc.

Another new machine tool at the enterprise is a multitool semiautomatic. From 2 to 20 tools can be mounted on it for performing various operations.

#### METALLURGICAL PLANT INSTALLS PIPE CUT-OFF MACHINES -- Tbilisi, Zarya Vostoka, 1 Jul 53

Pipe cut-off machines manufactured by the Tbilisi Machine Tool Building Plant imeni Kirov have been installed at the pipe-rolling shop of the Transcaucasus Metallurgical Plant imeni Stalin.

#### RECOMMEND SERIES PRODUCTION OF MODERNIZED LATHE -- Tbilisi, Zarya Vostoka, 12 Jul 53

In November 1952, the Tbilisi Machine Tool Building Plant imeni Kirov began the production of parts for its new LD63M universal screw-cutting (engine) lathe. In the spring of 1953, the machine tool was completed and accepted by the State Acceptance Committee.

4 [ ] for earlier information on this model\_7

The LD63M has been recommended for series production.

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#### EXPERIMENTAL MACHINERY PLANT BUILDS LATHE -- Leningradskaya Pravda, 9 Jul 53

The Odessa Experimental Machinery Plant has released a new screw-cutting lathe of original design. It can perform various types of lathe operations; cut metric, inch, and worm threads; and, with the use of attachments, it can mill, cut gears, and grind parts. It has a higher productivity than any similar machine tool.

- 2 -

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BUILD LATHES FOR USE ON SHIPS -- Yerevan, Kommunist, 30 Jul 53

In 1953, the Yerevan Machine Tool Building Plant has begun series production of screw-cutting lathes to be used in the field and on ocean and river ships.

In contradistinction to conventional designs, these machine tools are equipped with direct-current electric motors and electrical apparatus which are well protected from water and moisture. They are also equipped with special hydraulic pumps for cooling the tools during operation.

The plant has already completed a group of the newly designed machine tools.

HEAVY MACHINE BUILDING PLANT BUILDS LATHES -- Leningradskaya Pravda, 2 Jul 53

The Kramatorsk Machine Building Plant imeni Ordzhomikidze has produced a fully automatic lathe which turns a steam-locomotive wheel in 40 minutes.

The plant recently manufactured a 450-ton lathe which can machine parts weighing up to 100 tons at a cutting speed of 250 meters per minute.

NEW AUTOMATIC LATHE FOR BEARING RINGS -- Moscow, Vechernyaia Moskva, 8 Jul 53

The Moscow Krasny Proletariy Machine Tool Building Plant imeni A. I. Yefremov has built a new high-production automatic lathe for machining bearing parts.

The new machine has dozens of cutting tools which operate simultaneously. Blanks for roller bearing rings are transferred from one spindle to another automatically for successive machining operations.

The new automatic will be incorporated in an automatic transfer machine line.

Moscow, Vechernyaya Moskva, 20 Jul 53

Besides producing machine tools, the Moscow Krasny Proletariy Plant also manufactures spare parts for agricultural machines.

At present, it is manufacturing parts for the Kramatorsk Heavy Machine Tool and Press and Forging Equipment Plant.

CATALOGUE ON MACHINERY DEVELOPED BY HIGHER TECHNICAL SCHOOL -- Moscow, Pravda, 11 Jul 53

Work has just been completed at the MVTU (Moscow Higher Technical School) imeni Bauman on compiling a catalogue, Mashiny, Stanki, Apparaty i Pribory, Razrabotannyye v MVTU za Period 1949 - 1952 gg (Machines, Machine Tools, Apparatus, and Instruments Developed at the MVTU during 1949 - 1952). The catalogue contains photographs, blueprints, and short technical descriptions on about 40 new designs. Many of these machines and instruments have recently been adopted in industry. Among them is a semiautomatic unit for oxygen flux cutting of stainless steels.

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The inventions and adaptations are the result of theoretic and experimental work conducted in cooperation with industrial workers. The school personnel are now working with 100 large-scale machine-building plants in the country.

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- 4 -  
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